

STATEMENT OF WORK FOR THE (SOW)

HIGH MOBILITY MULTIPURPOSE WHEELED

VEHICLE (HMMWV) SERIES TRUCKS

INSPECT REPAIR ONLY AS NECESSARY (IROAN)

1 OCTOBER 1999

SOW-00-835-2-08770A-2/1

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1.0 Scope. This SOW, along with TM-2320-50/1, sets forth tasks and identifies the work efforts that shall be performed by the contractor in the IROAN of the High Mobility Multipurpose Wheeled Vehicle. These documents contain requirements to restore the High Mobility Multipurpose Wheeled Vehicle to Condition Code "A," which is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned material which is serviceable and issuable to all customers without limitations or restrictions." National Stock Numbers (NSNs) to be IROANed are 2310-01-111-2274, 2310-01-146-7194, 2320-01-107-7155, 2320-01-107-7156, 2320-01-146-7187, 2320-01-146-7188, 2320-01-146-7189, 2320-01-146-7190, 2320-01-146-7191, 2320-01-146-7193, 2310-01-372-3934, 2320-01-371-9577, 2310-01-371-9585, 2320-01-371-9578, 2320-01-372-3933, 2320-01-371-9581, 2320-01-371-9580, 2320-01-371-9582, 2320-01-371-9583 and 2320-01-346-9317. These NSN's shall hereafter be referred to as the HMMWV.

1.1 Background. IROAN is defined as "that maintenance technique which determines the minimum repairs necessary to restore equipment, components or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement."

2.0 Applicable Documents. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto which is in effect on the date of solicitation. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirement.

2.1 Military Specifications

MIL-A-46108

Armor: Transparent, Glass; Glass/Plastic

2.2 Military Standards

MIL-STD-129

DoD Standard Practice for Military Marking

2.2.1 Military Standards (For Guidance Only)

MIL-STD-973

Configuration Management

2.3 Other Government Documents and Publications

ATPD-2241	Vehicles, Wheeled: Preparation for Shipment and Storage of
TB 43-0213	Corrosion Prevention and Control
MWO 9-2320-280-35-1	Modification of 1-1/4 Ton Vehicles (Parking Brake)
DoD 4000.25-1-M	MILSTRIP Manual
NAVICPINST 4491-2A	Requisitioning of Contractor Furnished Materiel from the Federal Supply System
TI-11240-25/37	Solargizer Panel and Battery Mat Installation
TB 9-2300-388-50	Acceptance Testing of Reconditioned Combat and Tactical Vehicles
TM-2320-10/6B	Operator's Manual (Lubrication Instruction)
TM-2320-20/7B	VOL 1 Unit Level Maintenance
TM-2320-20/7B	VOL 2 Unit Level Maintenance
TM-2320-20/7C	VOL 3 Unit Level Maintenance
TM-2320-24P/8A	VOL 1 Repair Parts and Special Tools List
TM-2320-24P/8A	VOL 2 Repair Parts and Special Tool List
TM-2320-34/9B	Direct Support and General Support Maintenance
TM-2815-34/3A	Direct Support and General Support Engine Maintenance
TM-2815-34P/4B	Repair Parts and Special Tool List Engine
TM-2320-50/1	Inspect Repair Only As Necessary Manual
TM-4750-15/1	Painting Registration Markings
TM-4750-15/2	Camouflage Paint Patterns

TI-5820-25/22

Electromagnetic Environmental Effects (E3) Procedures for
Installation of Communication Equipment on U.S. Marine Corps
Platforms

NAVAIR 17-15-50.1

Joint Oil Analysis Program Manual, Volume I

2.4 Industry Standards

ANSI/ISO/ASQC Q9002-1994

Quality Systems

(Copies of military specifications and standards are available from the Naval Publications and Forms Center, [ATTN: NPODS], 5801 Tabor Avenue, Philadelphia, PA 19120-5099. Copies of other Government documents and publications required in connection with specific SOW requirements shall be obtained, from: Commander, Marine Corps Logistics Base (Code 891) Attn: Barbara Banks, 814 Radford Blvd., Albany, Georgia, 31704-1128, Commercial telephone number (912) 439-6752 or DSN 567-6752. Note: In addition to the above documents, the contractor shall be responsible for compliance with publications cited in Appendix A of TM-2320-50/1. Copies of engineering drawings, if applicable, shall be obtained from Commander (Code 825), Marine Corps Logistics Bases, 814 Radford Blvd., Albany, Georgia 31704-1128, commercial telephone number (912) 439-6410 or DSN 567-6410.

3.0 REQUIREMENTS

3.1 General Tasks. In fulfilling the specified requirements, the Contractor shall:

- a. Provide materials, labor, facilities, repair parts and missing parts necessary to inspect, diagnose, restore, and test the HMMWV. Upon completion of IROAN, repaired vehicles shall be Condition Code "A."
- b. Provide all tools and test equipment required to test, inspect, and calibrate the HMMWV.
- c. Conduct final-on-site testing which will be witnessed by Marine Corps Logistics Base (MCLB), Albany, Georgia (Code 835) representative.
- d. Be responsible for all structural, electrical, and mechanical requirements associated with the IROAN of the HMMWV.

3.2 Detailed Tasks. Detailed tasks shall be as defined by TM-2320-50/1 and applicable documents cited in paragraph 2.0 of this SOW, as well as the tasks described below. Applicable documents cited in Appendix A of TM-2320-50/1 shall also be applied.

3.2.1 Phase I - Pre-Induction. A pre-induction inspection analysis shall be made for each HMMWV to be IROANed under the provisions of this SOW using the Contractor Facility's diagnosis, inspection and testing techniques to determine extent of work and parts required.

These findings shall be annotated on the Pre-Induction Check Sheet located in Appendix C of TM-2320-50/1 and shall be provided to the government in accordance with section 4.1 of this SOW. During the pre-induction Phase the contractor will submit oil samples from the engine and transmission of each vehicle identified by USMC number to a qualified lab for analysis (Qualified Lab is defined as a Lab Certified by the Joint Oil Analysis Program as per NAVAIR 17-15-50.1.) See the reference table Appendix B for wear metal guidelines. The oil analysis lab sheet will be attached to the pre-induction check sheet. The contractor shall be responsible for correcting any deficiencies noted in the oil analysis.

3.2.1.1 HMMWV's received for IROAN shall have either a 60, 100, or 200 AMP alternator configuration. HMMWV's received with a 60, 100, or 200 AMP alternator shall be IROANed and returned with the same alternator configuration as received.

3.2.1.2 M1043, M1044, M1045 and M1046 HMMWV's are equipped with supplemental ballistic glass. Maximum allowable defects are listed in MIL-A-46108, Table 1. Delamination and cracks in the acrylic portion of the ballistic windshield and side glass are acceptable as long as the driver's vision is not impaired.

3.2.1.3 When a new tire is required to be ordered from the manufacturer, the new radial tire and wheel assembly identified in TM-2320-24P/8A shall be ordered and installed as per TM-2320-20/7B. Radial and bias ply tires shall not be intermixed on a HMMWV. During the IROAN process, bias ply tires meeting the specifications contained in TM-2320-50/1 shall not be disposed of. Bias ply tires and applicable wheels/rim assemblies shall be retained and installed on a HMMWV that requires a replacement tire. The Contractor is authorized to utilize stick on wheel weights when balancing the radial and or bias tires.

3.2.1.4 TM-2320-50/1, Page 2-1, Paragraph 2-2, subpara. b - Change the note to read, "If it is determined that a vehicle exceeds 65% of the standard unit price or acquisition/replacement cost (whichever is greater), the government shall be provided with a detailed inspection report and cost estimate along with a request for specific instructions through the contracting officer." The standard unit price or acquisition/replacement cost will be provided to the Contractor by (Code 835) if requested.

3.2.1.5 Per TM-2320-50/1, Page 9-3, paragraph 9-2.3 and 9-2.4, a detailed inspection of each halfshaft's outer and inner constant velocity (CV) joint is required. In lieu of complete disassembly and in accordance with the manufacturer's recommendation, each half shaft shall be removed and the CV joint shall be checked for rough movement and correct joint operation. If the half shafts CV joints are found defective, complete disassembly shall be performed and the CV joints shall be repaired/replaced as required. Then repairing the CV joints, authorization is granted for the use of Speedi-Sleeve on the CV and output flanges on all variants of the HMMWV. When replacement of the complete half shaft is required the contractor is authorized to use remanufactured half shafts.

3.2.1.6 TM-2320-50/1, Page 11-2, Paragraph 11-1.3 - Delete subparagraph d.

3.2.1.7 TM-2320-50/1, Page 11-7, paragraph 11-2.4 - Delete subparagraph c.

3.2.1.8 To determine the structural integrity of frame rails and related components, ultrasonic type application or inspection techniques may be required. A ping test of all frame rails will be performed 100%, a ping test is defined as pinging the underside of the frame rails with a hammer to determine the structural integrity of the frame rail. If the ping test does not conclusively determine the structural integrity of the frame rail a ultrasonic nondestructive testing may be performed. All frame rails/crossmembers and hardware found to be nonconforming will be replaced 100% utilizing TM 2320-20/7C and TM 2320-34/9B.

3.2.1.9 Test equipment shall be used to determine that assemblies and subassemblies meet prescribed reliability, performance, and work requirements. In those cases when conformance to TM-2320-50/1 cannot be certified through existing inspection and testing procedures and by use of available diagnostic equipment, the assembly shall be removed, disassembled, inspected, tested or repaired to the degree necessary to assure full conformance with this SOW.

3.2.1.10 Rear main seals on all 6.2L engines will be replaced 100% utilizing TM 2815-34/3A and TM 2815-34P/4B.

3.2.1.11 All transfer case input and output seals will be replaced 100% utilizing TM 2320-20/7B and TM 2320-34/9B.

3.2.1.12 TM 2320-50/1, Page 14-8, change NOTE to read: Do not undercoat interior of battery box per TB 43-0213. Coat per Chapter 2-16S, page 2-8, of this Manual. Install Battery mat as per TI-11240-25/37. When undercoating vehicles the repair facilities are authorized to use XRC106 in lieu of TECTYL 2423 NST and/or ZIEBART.

3.2.1.13 TM 2320-50/1, Page 5-3, paragraph 5-1.4, section b. add the following statement: Replace coolant 100% with new antifreeze, do not use recycled antifreeze.

3.2.1.14 TM 2320-50/1, Page 3-4, add the following note: FOR DYNO TESTING OF THE HMMWV ENGINE STILL IN THE CHASSIS, THE MARINE CORPS RECOMMENDS USING A 4-WHEEL DYNO OR TOWED DYNO. HOWEVER IF A 2-WHEEL DYNO IS USED THE FRONT DIFFERENTIAL MUST BE MECHANICALLY DISCONNECTED, AND THE TRANSFER CASE PLACED INTO HIGH LOCK. UTILIZE THE OPERATING SPECIFICATION CITED IN TABLE 3-3, AS A BASE LINE.

3.2.1.15 TM 2320-50/1, Page 7-4, add the following paragraph. 7-1.7: Past inspections of HMMWV's has revealed the transmissions aluminum lip for mounting the cover has been broken off next to the engine's oil pan. The repair facilities are authorized to use the following repair procedure to repair this defect:

(a) Install converter housing cover on transmission case with remaining cap screws. Tighten cap screws to 18 lb-ft.

(b) Measure down ½ inch from broken hole on cover and mark. Ensure new mounting hole will be aligned with other holes.

(c) Use letter size F drill bit to drill through housing cover and aluminum transmission case lip.

(d) Install self-tapping 5/16" screw (NSN 5305-01-253-2993). Tighten tapping screw to 18 lb-ft.

3.2.1.16 TM 2320-50/1, Page 10-2, paragraph 10-1.3, sub paragraph d. Change to read: All HMMWV's without the rear wheel parking brake will have the Army MWO 9-2320-280-35-1 applied 100%.

3.2.1.17 The contractor will ensure all HMMWV's have had west cost mirror kits installed. As a prerequisite before the HMMWV's are sent to the contractor all mirror assemblies have been removed. This SOW does not require the contractor to install a rearview mirror assembly it does require the contractor check the windshield frame to ensure the holes and blind rivets have been installed.

3.2.1.18 To clarify conflicting information regarding rust proofing of the Weapon Station tray assembly on the M1043, M1044, M1045, and M1046 as per TB 43-0213 the following guidance is provided: TB 43-0213, page 20-3, paragraph d, fig 20-4, disregard dimensions for location of holes D and E. TB 43-0213, page 20-8, paragraph j. fig 20-12, drill two holes D and E in channel C. Hole E should be 9 inches from the end of the opening in channel C. Hole D should be 12 inches from hole E. Holes should be ½ inch in diameter. To apply undercoating insert flexible tool into openings A, B, and C at end of channels and holes D and E. Spray in all directions while slowly withdrawing tool.

3.2.2 Phase II - IROAN. After all pre-induction tests and inspections have been completed, repair of the HMMWV Series Trucks shall be accomplished in accordance with this SOW and TM-2320-50/1. IROAN shall be performed at the Contractor. Information recorded on the IROAN Pre-Induction Check Sheet during pre-induction phase shall be used as a guide by the Contractor to achieve the mechanical baseline of production HMMWV Series Trucks. The following efforts in addition to the requirements specified by TM-2320-50/1 shall be performed.

3.2.2.1 Detailed Mechanical Work. HMMWV Series Trucks received for IROAN shall be worked in accordance with the following paragraphs. All deficiencies noted on the IROAN Pre-Induction Check Sheet shall be repaired/replaced.

3.2.2.2 Hardware

(a) Replace broken, unserviceable and/or missing hardware including nuts, bolts, screws, washers, turn lock fasteners, etc., in accordance with TM-2320-50/1. Unserviceable would include any of the above that failed to function properly.

(b) Ensure proper hardware locking devices are present on all moving mechanical assemblies.

(c) Hardware normally supplied with commercial parts shall be used unless specifically prohibited.

3.2.2.3 Painting. HMMWV's requiring painting/touchup, exterior or interior, shall be repainted 100% with Chemical Agent Resistant Coating (CARC) and have the three color camouflage pattern applied. Painting procedures and camouflage patterns shall be in accordance with TM-4750-15/1 and TM-4750-15/2. Painting is authorized 100 percent for corrosion control. Tires shall not be painted. The contractor facilities are now authorized to use Waterborne Camouflage Coating in lieu of CARC due to stringent local environmental regulations.

3.2.2.4 Data Plate. HMMWV Series Trucks shall have an IROAN data plate. Locate IROAN data plate on the passenger front outside kick panel. This plate shall be constructed of metal and shall be attached after the vehicle has completed the IROAN cycle. The data plate shall contain the following information:

VEH. SER. NO. _____ DATE _____
REPAIRED TO C/C "A" LIMITED STANDARDS IN ACCORDANCE WITH
IROAN PROCEDURE FOR HMMWV
ODOMETER READING AT TIME OF IROAN _____
CONTRACTOR _____

NOTE: Odometers on HMMWV's IROANed under the provisions of this SOW shall not be reset to zero.

3.2.2.5 All HMMWV Series Trucks received with standard (plastic) grills shall be replaced 100 percent with the metal (ballistic) grill. Installation and part number shall be in accordance with TM-2320-24P/8A and TM-2320-34/9.

3.2.3 Phase III - Inspection, Testing and Acceptance

3.2.3.1 Inspection, testing and acceptance of the HMMWV shall be conducted in accordance with the Final Road Test Checklist and the Final Acceptance Checklist (TM 2320-50/1 Appendix D). The completed checklist shall be provided to the government in accordance with section 4.2 of this SOW.

3.2.3.2 The Contractor shall be responsible for conducting all required tests and shall ensure all necessary personnel are available to complete the final acceptance. Acceptance test shall be held at the Contractor. MCLB, Albany, Georgia, representatives shall be given a minimum of two weeks notice prior to beginning acceptance testing. The test area shall be cleared of all equipment parts and components not required for the test.

3.2.3.3 The Contractor shall be responsible for correcting any deficiencies identified during inspection/testing. MCLB, Albany, Georgia, may require the Contractor to repeat tests or portions thereof, if the original tests fail to demonstrate compliance with this SOW.

3.2.3.4 Acceptance testing on all HMMWV Series Trucks IROANed under the provisions of this SOW shall be accomplished in accordance with TB-2300-388-50.

3.2.3.5 TM-2320-50/1, Page 2-3, Paragraph 2-13 - Oil Seal and Gasket Leakage - If after compliance with this paragraph, the inspector is in doubt, use TM 2320-10/6B, Appendix G, for further guidance regarding Lubrication Instructions/Fluid Capacities.

3.3 Packaging, Handling, Storage and Transportation (PHS&T)

a. The HMMWV shall be prepared for shipment and storage in accordance with ATPD 2241 and the applicable Equipment Preservation Data Sheet which may be obtained from Commander (G330), Marine Corps Logistics Bases, 814 Radford Blvd, Albany, GA 31704-1128, DSN 567-6856, commercial 912-439-6856. Items scheduled for long term storage shall be preserved to Level A. Items scheduled for immediate shipment to all locations with the exception of Maritime Prepositioned Forces (MPF), shall be preserved to Level B, Drive-On/Drive-Off. Equipment preserved to Level B, Drive-On/Drive-Off being prepared for overseas shipment shall have a label affixed which reads, "NOT FOR WEATHER DECK STOWAGE." Items scheduled for MPF shall be preserved to Level B, MPF Modified Drive-Away.

b. The terms "Drive-On/Drive-Off" and "MPF Modified Drive Away" are defined as follows:

(1) Drive-On/Drive-Off-Batteries shall be hot and disconnected from vehicle electrical system. Terminals and leads shall be taped. Fuel tank shall be filled $\frac{1}{4}$ tank full. The air intake system, exhaust and brake systems, drive-train and gauges shall be depreserved.

(2) MPF Modified Drive Away-Batteries shall be hot and connected to vehicle electrical system. Fuel tank shall be filled $\frac{3}{4}$ full of JP5. The air intake system, exhaust and brake systems, drive-train and gauges shall be depreserved. Fire extinguisher bracket and seats shall be installed.

c. Marking shall be in accordance with MIL-STD-129.

d. The Marine Corps will provide the contractor with the shipping address(es) for delivery of the repaired equipment, and the contractor shall be responsible for arranging for shipment to the pre-designated site. The Marine Corps will be responsible for transportation costs associated with shipping the equipment to and from the contractor.

3.4 Configuration Control. Using MIL-STD-973 as guidance, the Contractor shall apply configuration control to government established configuration items. The Contractor shall not

implement design changes to configuration items without first receiving authorization from the government. When it is deemed necessary to temporarily depart from the established design, the Contractor shall submit a Request for Deviation or Request for Waiver using MIL-STD-973, paragraphs 5.4.3 or 5.4.4 as guidance.

3.5 Electromagnetic Environmental Effects (E3) Procedures. The contractor shall plan for and execute proper E3 control procedures when applicable in the IROAN process and shall use TI-5820-25/22 in conjunction with the detailed requirements specified in this document and TM-2320-50/1.

3.6 Quality Assurance Provisions. The Contractor shall provide and maintain a Quality System that, as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9002-1994, Quality System Model for Quality Assurance in Production, Installation, and Servicing. Authorized MCLB Albany representatives shall be permitted to observe the work/task accomplishment or to conduct inspections during working hours. Inspection by MCLB Albany of test plans and materials furnished hereunder does not relieve the Contractor from any responsibility regarding defects or other failures to meet contract requirements which may be disclosed prior to final acceptance. Failure of the Contractor to promptly correct deficiencies discovered shall be reason for suspension of acceptance until corrective action has been accomplished. Noncompliance with procedures resulting in degraded quality of work may result in a stop-work order requiring action by the Contractor to correct the work performed and to enforce compliance with quality assurance procedures or face contract termination. Notwithstanding such MCLB Albany representative inspection, it shall be the Contractor Facility's responsibility to ensure that the entire system meets the performance requirements delineated and addressed in this SOW. The Contractor shall establish and maintain an Inspection System in accordance with this SOW. The Contractor shall provide an Inspection and Test Plan.

3.7 Government Furnished Equipment (GFE) Accountability. The Management Control Activity (MCA), Marine Corps Logistics Bases, Albany, Georgia (G316-2/MCA) will coordinate required GFE and will maintain a central control system on Marine Corps assets in contractor's possession. *The MCA will forward a GFE Accountability Agreement to the Contractor for signature to establish a chain of custody and property responsibilities for Marine Corps assets.*

3.7.1 GFE to Be Provided. The following item will be provided to the Contractor as GFE: STE/ICE-R, 4910-01-222-6589, quantity of 1, and Run Flat Compression Tool NSN 5120-01-335-5847, quantity of 1.

3.8 Contractor Furnished Materiel (CFM). In the event that Contractor Furnished Materiel (CFM) is required for repair parts, the DoD 400.25-1-M, (MILSTRIP) Chapter 11 authorized contractors to requisition through the DoD Supply System. The Marine Corps has adopted the Navy's procedures regarding Contractor Furnished Materiel (NAVICPINST 4491.2A). This would require specific provisions in Section H of the contract to place total responsibility on the contractor to obtain direct electronic access to the DoD Supply System, Electronically submit their requisitions, maintain status, receive billing from the source of supply and provide direct payment to DFAS.

3.9 Rejection. Failure to comply with any of the specified requirements listed herein shall be reason for rejection by MCLB, Albany, Georgia. The Contractor shall, at no additional cost to the government, provide the following:

3.9.1 Develop an approach for modification or correction of all deficiencies.

3.9.2 Upon approval of a documented approach, the Contractor shall correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures requirements is demonstrated.

4.0 Reports/Documentation

4.1 Pre-Induction Check Sheet. The Contractor shall provide a pre-induction check sheet for each HMMWV to be IROANed within 30 days after completion of pre-induction analysis. A separate report shall be submitted for each vehicle and shall be identified by United States Marine Corps Serial Number (USMC). The pre-induction check sheet is located in TM 2320-50/1 Appendix C.

4.2 Final Road Test Checklist. The Contractor shall provide a final acceptance testing checklist for each HMMWV IROANed. A separate report shall be submitted for each vehicle and identified by United States Marine Corps serial numbers. The final road test checklist is located in TM 2320-50/1 Appendix D. If discrepancies are found during testing, discrepancies will be corrected and reports resubmitted to the government within 30 days of testing.

4.3 Parts Usage Report. The Contractor shall provide a Parts Usage Report for each HMMWV IROANed. The report shall be identified by United States Marine Corps Serial Number and shall contain Part Numbers, Part Description, Part Cost and NSN. The report shall be one Hard Copy for each HMMWV and one 3.5 high density diskette in ASCII Format with all vehicles listed. This report will be provided at the completion of the work effort.

4.4 Monthly Progress Reports. The Contractor shall provide Monthly Progress Reports summarizing the progress and status of the IROAN Program.

DATA DELIVERABLES ADDRESSEE LIST

Commander (Code 825-2)
Attn: Doug Smith
814 Radford Blvd.
Albany, GA 31704-1128

Commander (Code 835-2)
Attn: Jeff Keller
814 Radford Blvd.
Albany, GA 31704-1128

Commander (Code 891)
Attn: Barbara Banks
814 Radford Blvd.
Albany, GA 31704-1128

Appendix A

COMPONENTS 6.2L ENGINE WEARMETAL GUIDELINES, PARTS PER MILLION (PPM)

New	Cu	Fe	Cr	Pb	Al	Si
Normal	0-31	0-99	0-6	0-84	0-15	0-134
Marginal	32-42	100-146	7-9	85-117	16-21	135-177
High	43-53	147-193	10-12	118-150	22-27	178-220
Abnormal	54 or more	194 or more	13 or more	151 or more	28 or more	221 or more

Rebuild	Cu	Fe	Cr	Pb	Al	Si
Normal	0-17	0-45	0-10	0-34	0-10	0-32
Marginal	15-21	46-56	11-25	35-45	11-13	33-41
High	22-28	56-67	26-35	46-56	14-16	42-50
Abnormal	29 or more	68 or more	36 or more	57 or more	17 or more	51 or more

IROAN	Cu	Fe	Cr	Pb	Al	Si
Normal	0-22	0-88	0-7	0-27	0-16	0-63
Marginal	23-36	89-123	8-11	28-38	17-26	64-91
High	37-50	124-158	12-15	39-49	27-36	92-119
Abnormal	51 or more	159 or more	16 or more	50 or more	37 or more	120 or more

COMPONENT THM 400 Transmission

REBUILD	Cu	Fe	Cr	Pb	Al	Si
Average	74	11	1	10	2	13
Std. Dev.	33	7	1	5	1	8
2 Std. Dev.	66	14	2	10	2	16
Abnormal	140	25	3	20	4	29

IROAN	Cu	Fe	Cr	Pb	Al	Si
Average	49	23	1	16	3	19
Std. Dev.	29	14	1	11	1	22
2 Std. Dev.	58	28	2	22	2	44
Abnormal	107	51	3	38	5	63

Appendix B

(1 Data Item)

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____ X
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D. SYSTEM/ITEM HMMWV Series Trucks	E. CONTRACT/PR NO.	F. CONTRACTOR
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1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A001	Contractor's Progress, Status, and Management Report	

4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-80227	5. CONTRACT REFERENCE SOW 4.4	6. REQUIRING OFFICE MCLBA (835)
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7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY MTHLY	12. DATE OF FIRST SUBMISSION See Blk 16	14. DISTRIBUTION			
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION See Blk 16	a. ADDRESSEE	b. COPIES		
			Draft		Final		
					Reg	Repro	

[illegible]

G. PREPARED BY <i>David A. [Signature]</i>	H. DATE APR 6 1999	I. APPROVED BY <i>David A. [Signature]</i>	J. DATE APR 6 1999
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17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

(1 Data Item)

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 100 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP _____ TM _____ OTHER <u>X</u>					
D. SYSTEM/ITEM HMMWV Series Trucks		E. CONTRACT/PR NO.		F. CONTRACTOR					
1. DATA ITEM NO. B001	2. TITLE OF DATA ITEM Request For Deviation			3. SUBTITLE Configuration Management					
4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-80640B		5. CONTRACT REFERENCE SOW 3.3		6. REQUIRING OFFICE MCLBA (825)					
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED A	10. FREQUENCY ASREQ	12. DATE OF FIRST SUBMISSION SEE BLK 16	14. DISTRIBUTION					
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION	a. ADDRESSEE	b. COPIES Draft Final Reg Repro				
16. REMARKS Blk 4 - Contractor format is authorized. Blks 10 & 12 - RFDs shall be submitted to obtain authorization to deliver nonconforming material which does not meet prescribed configuration documentation. RFDs will be reviewed and disposition determined within 30 calendar days upon receipt by the Government. RFDs shall be submitted on a 3.5" disk in ASCII format. Distribution Statement A: Approved for public release, distribution is unlimited				MCLBA (825-2)	0 1 0				
				15. TOTAL				0	1 0
				G. PREPARED BY <i>[Signature]</i>		H. DATE 4-6-99	I. APPROVED BY <i>[Signature]</i>		J. DATE APR 6 1999

17. PRICE GROUP

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____ X
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D. SYSTEM/ITEM HMMWV Series Trucks	E. CONTRACT/PR NO.	F. CONTRACTOR
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1. DATA ITEM NO. B002	2. TITLE OF DATA ITEM Request For Waiver	3. SUBTITLE Configuration Management
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4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-80641B	5. CONTRACT REFERENCE SOW 3.3	6. REQUIRING OFFICE MCLBA (825)
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7. DD 250 REQ LT	8. DIST STATEMENT REQUIRED A	10. FREQUENCY ASREQ	12. DATE OF FIRST SUBMISSION SEE BLK 16	14. DISTRIBUTION a. ADDRESSEE MCLBA (825-2)	b. COPIES Draft Final Reg Repro
9. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION		

16. REMARKS Blk 4 - Contractor format is authorized. Blks 10 & 12 - RFWs shall be submitted to obtain authorization to deliver nonconforming material which does not meet prescribed configuration documentation. RFWs will be reviewed and disposition determined within 30 calendar days upon receipt by the Government. RFWs shall be submitted on a 3.5" disk in ASCII format. Distribution Statement A: Approved for public release, distribution is unlimited	15. TOTAL 0 1 0
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17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

G. PREPARED BY <i>Carl Y. [Signature]</i>	H. DATE 14-6-99	I. APPROVED BY <i>[Signature]</i>	J. DATE APR 1999
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